SatisGeo

portable instruments for geophysics and environment

PMG-1 Proton Gradiometer

more

- portable instrument for mineral, environmental or archaeological exploration using the total geo-magnetic field vector measurements
- 0.1nT resolution
- single mode - total geomagnetic field measurements using 1 sensor
- gradient mode - measuring of gradient of the field in arbitrary direction using 2 sensors
- auto mode - base station measuring
- internal memory data storage (18000 readings)
- data transfer to a PC via RS 232

top

KT-6 Kappameter

more

- handheld instrument for fast and sensitive measurement of magnetic susceptibility of rock samples, exposures or drill cores

- sensitivity : $1x10^{-5}$ SI units
- real susceptibility automatic calculated
- auto scan mode for core analysis with audio indication of relative reading values
- easy to operate single push-button
- autorange, data storage (70 readings) and PC connectivity via RS 232

top

MGS-150 Mini Gamma Ray Spectrometer

- 256 channel portable gamma ray spectrometer with built-in scintiblock size 2" x 2"
- 8 regions of interest (ROI) set from front panel
- real time data output capability of full spectral data up to 1/sec
- internal memory - 10,000 readings of 4 window ROI data or 100 spectra
- selectable spectrum stabilization using various isotopes

more

- RS-232 output of data from memory
- direct display of K, U, Th in computed contents - in % K, ppm eU, ppm eTh, or counts per time period
- test pad calibration capability
- PC processing software available
- LCD graphical back light display
- powered by two "D" cell batteries or rechargeable batteries
- one hand-held, truly portable unit of rugged construction

top

MGS150-2 Mini Gamma Ray Spectrometer

- 256 channel portable gamma ray spectrometer with built-in scintiblock size 2" x 2"
-
- connector for an external probe, typically GSP-3 with 3" x 3" scintiblock
-
- 8 regions of interest (ROI) set from front panel
- real time data output capability of full spectral data up to 1/sec
- internal memory - 10,000 readings of 4 window ROI data or 100 spectra

- selectable spectrum stabilization using various isotopes
- RS-232 output of data from memory
- direct display of K, U, Th in computed contents - in % K, ppm eU, ppm eTh, or counts per time period
- test pad calibration capability
- PC processing software available
- LCD graphical back light display
- powered by two "D" cell batteries or rechargeable batteries
- one hand-held, truly portable unit of rugged construction

more

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GS-512 Gamma Ray Spectrometer

- 512 channel portable gamma ray spectrometer for field and laboratory use
- 8 regions of interest (ROI) can be set
- internal memory - 4300 readings of 4 window ROI data or 200 complete 512 channel spectra
- selectable spectrum stabilization using various isotopes
- RS-232 output of data from memory in real time
- direct display of K, U, Th in computed contents - in %, or ppm respectively, or counts per time period
- test pad calibration capability
- PC processing software available
- detectors - various types, size and geometry
- LCD graphical back light display

more

top

GSP-4L Laboratory Gamma Scintillation Probe

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- designed for a laboratory use with the Gamma Ray Spectrometer GS-512
- consists of scintiblock size 4" x 4", electronics and low-background shields
- PC software for processing spectra - GSLab
- provides a basic geo-chemical analysis of a sample, giving potassium, uranium and thorium contents

top

SCS-1 Seismic Cable Scanner

more

- fast, easy-to-use testing of telemetry cables
- audible and visual indication of pass or fail
- display reasons for failure
- test results available on serial port
- uploading and downloading of cable specification values
- can be configured for SERCEL, I/O system I & system II, ARAM 24 & other cables

top

SatisGeo

is a successor of

GEOFYZIKA

Geofyzika has been closed. Rights to manufacture, to sell and to repair products of Geofyzika have been transferred to a new company SatisGeo. We keep continuity. Our business is to:

- develop
- manufacture
- sale
- repair
- rent

top

portable instruments for geophysics and environment.

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GS-512 Gamma Ray Spectrometer

**The GS-512 is designed for 512 channel operation in range of 0,1 to 3MeV,
arbitrary detectors, graphical LCD to display computed data and full spectra,
assay mode for geophysical data: %K, ppm eU, ppm eTh,
8 ROIs (regions of interest) can be set,
real time data output capability of full spectral data up to 1/sec,
as option user's GPS position recording.**

APPLICATIONS

- Standard field geophysical survey
- Laboratory gamma scintillation spectroscopy
- Mobile survey
- Drillhole measurements to one meter depth

FEATURES

- 512 channel portable Gamma Ray Spectrometer
- 8 - Regions of Interest (ROI) set from front panel
- Real time data output capability of full spectral data up to 1/sec
- Internal memory - 8,500 readings of 4 window ROI data or 400- 600 complete 512 channel spectra
- Selectable spectrum stabilisation using different isotopes
- RS-232 output of data from memory and in real time
- Direct display of K, U, Th in computed contents - in % K, ppm eU, ppm eTh, or counts per time period
- Test pad calibration capability from stored spectra
- PC processing software available
- Detectors - various types, size and geometry
- Large LCD graphical back light display
- User's functions: GPS position recording
- Rugged construction for use in the field and vehicle mounted applications

DESCRIPTION

The GS-512 is a Gamma Ray Spectrometer designed for field gamma ray spectrometry, especially for determination of K, U, Th contents and total gamma ray activity. The GS-512 Spectrometer uses a power microprocessor to offer the user a range of features. Immediately after the end of measurement, the contents of K [%], U, Th [ppm] or the number of count rates in relevant areas can be displayed. The GS-512 enables the user to check the shape of the complete spectrum and flexibly set the peak areas.
The microcomputer can compute the precise position of the reference peak from the multi-channel spectrum and therefore can stabilise reference peak position through gain control. A simplicity in changing the reference channel allows to use of different reference isotopes.

The non-volatile memory stores the measured data, the measuring parameters and calibration constants. Up to 8,500 measurements can be stored. Complete 512 channel spectra may be recorded internally in memory (more than 400) and allow calibration on test pads. There is also the possibility for retrieval of stored data, via a computer and built-in display. There are the possibilities of imputing the recorded data to the GS-512 for the test of errorless record or for other data handling. In the remote mode all functions are substituted by an external computer control via the RS-232C serial channel.
The GS-512 is powered by six "D" cell batteries or rechargeable batteries. External power supplier 12VDC can be used for mobile, laboratory and stationary installations.

SPECIFICATIONS

The GS-512 consists of the gamma scintillation probe and the console. The front panel keys are of diaphragm type, sealed and weather proof. There are no other pots or setting elements except these keys. Geofyzika probes are available in different volumes to provide the sensitivity and efficiency required and all probes contain very high quality detectors NaI(Tl).

GAMMA SCINTILLATION PROBE GSP-3:

The NaI(TI) scintillation detector 3" x 3", with photomultiplier 3".
Energy resolution for 137Cs better than 8.5 %. Charge sensitive preamplifier. Cable driver. Internal helipot for gain adjustment. High voltage power supply 1 kV positive, internally adjustable +/- 10 %, temperature drift better than 100 ppm/°C. Reference radioisotope source 137Cs, activity of 10 kBq (approx. 0.28 microCi).

DIMENSIONS :	dia 125 x 450 mm
WEIGHT:	4,6 kg
TEMPERATURE RANGE :	from -10°C to +60°C

CONSOLE GS-512:

AMPLIFIER :	1 microsec. semi-Gaussian shaping, digitally controlled gain +/- 25 %, pole zero cancellation, base line restorer
ANALOG-TO DIGITAL CONVERTER (ADC):	20 MHz, Wilkinson type. Differential non-linearity better than 3 % over 95 % of range. Channel width 5 mV, input range between 50 mV and 2.5 V. Dead-time correction.
MULTICHANNEL ANALYSER:	The 512 channels, max. (232 - 1) counts per channel. Live time mode of collection setting in the range 1s to 23:59:59 . Digital output.
DATA HANDLING:	A multiple ROI selection. ROI integration with digital data display. Alternative display of U, Th in [ppm] and K in [%] contents or the total gamma ray activity (TOT) in [ppm Uequi]. Serial access.
DIGITAL SPECTRUM STABILIZER:	Reference peak setting in the range of 50 to 250 channels, the zero setting means stabilisation is OFF. A digital output for the amplifier gain control.
	Internal CMOS RAM powered by a lithium battery. Holding data and measuring parameters plus calibration constants for more than five years. Standard size allows to

NON-VOLATILE DATA MEMORY:	record as much as 400-600 complete 512 channel spectra or 8,500 four-component data blocks (U, Th, K, TOT) and identifiers. Identifier input manually through keyboard or automatic increment and decrement by step - in the latter case without occupation of memory.
INTERFACE:	EIA RS-232 C Standard, for data/spectra transfer and external control by computer.
KEYBOARD:	21 keys on the mono-panel. A diaphragm push-button system, sealed, weather-proof.
DISPLAY:	LCD 240 x 128 dots
BUZZER:	A 4 kHz beep to indicate the end of measurement or an error condition.
POWER:	Six "D" cell replaceable flashing batteries or rechargeable batteries. An external 12 VDC supply. A message at battery voltage lower than 6.5V.
DIMENSIONS:	240 x 200 x 100 mm
WEIGHT:	2.5 kg without batteries
USER'S FUNCTIONS:	Special functions can be implemented on user's request. (e.g. user's GPS position recording).

STANDARD COMPONENTS

- Console GS-512
- Probe GSP-3
- Reference Isotope 137Cs of 10kBq
- Interconnecting Coiled Cable
- RS-232C cable
- Instruction manual
- Diskette with communication SW for WINDOWS
- Transport case

OPTIONAL COMPONENTS

- Hand carry probe GSP-2 with detector NaI(Tl) 2"x2"
- Hand carry probe GSP-4 with detector NaI(Tl) 4"x4"
- Laboratory probe GSP-4L with Pb-shield and detector NaI(Tl) 4"x4"
- AC/DC adapter for mains 230VAC 50Hz